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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,645	07/25/2003	Douglas G. Placek	240932US0	1403

22850 7590 12/23/2005

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EXAMINER

KHAN, AMINA S

ART UNIT PAPER NUMBER

1751

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/626,645

Applicant(s)

PLACEK ET AL.

Examiner

Amina Khan

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendments received on 11/18/2005. Applicant's amendment has been entered and applicant's remarks carefully considered. With respect to the claims corrected for improper multiple dependency (claims 4-22) and the newly submitted claims (claims 23-30), new grounds of rejection have been entered.

### ***Response to Arguments***

2. Applicant's arguments filed on 11/18/2005 have been fully considered but they are not persuasive. The amendments to claims 1-3 are not sufficient to overcome the rejection by the examiner made on 08/18/2005. Applicant states that Liesen (US 2004/0092409) excludes methyl methacrylate from his polymer composition and that the instant application requires the use of methyl methacrylate, however there is nothing in claims 1-3 to require the inclusion of methyl methacrylate. Claims 1-3 simply disclose the inclusion of and alkyl(meth)acrylate polymer comprising monomers of formula (I) in which the R1 group may be a linear or branched alkyl residue with 1-6 carbon atoms.

The applicant further argues that the claimed invention is drawn to a functional fluid, whereas Liesen discloses an alkyl(meth)acrylate polymer. However, Liesen teaches the formation of lubricating oil compositions with the present copolymers (page 3, paragraph 0038). These lubricating oils would be the equivalent of functional fluids.

Therefore, the rejection of claims 1-3 over Liesen is maintained.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 29 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant states that support for the new claim 29 is found in the examples of the specification. In claim 29 the applicant discloses the application of octadecanoic acid. In preparation example I of the applicant's specification, the applicant discloses the application of 9-octadecanoic acid ester. It is the examiner's position that octadecanoic acid and 9-octadecanoic acid ester are different chemical compounds, making the recitation of octadecanoic acid in the claims new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20 and 21 provide for the use of functional fluids, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Art Unit: 1751

Claims 20 and 21 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131; 149 USPQ 475 (D.D.C. 1966).

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 12-19 and 23-26 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Liesen (US Publication #US 2004/0092409).

Art Unit: 1751

The rejection to claims 1-3 from the prior office action dated 8/11/05 is upheld and incorporated below.

The Liesen prior art teaches alkyl(meth)acrylate copolymers to be used in lubricating oils that comprise 10-23 weight percent C<sub>3</sub>-C<sub>7</sub> alkyl(meth)acrylate, which meets the claimed limitation of 1-100% of ethylenically unsaturated esters of formula (I); from 77-90 weight percent C<sub>12</sub>-C<sub>14</sub> alkyl(meth)acrylate; and from 0-6 weight percent of at least one C<sub>6</sub>-C<sub>20</sub> alkyl(meth)acrylate, which meets the claimed limitation of 0-99% of ethylenically unsaturated esters of formula (II) (abstract, paragraph 1, lines 1-7). The Liesen prior art further teaches lubricating oil compositions for use in hydraulic fluids (page 7, paragraph 0061, lines 1-5) comprising esters of dicarboxylic acids (page 7, paragraph 0058, lines 1-5), polyol ethers (page 7, paragraph 0059, lines 1-3), and phosphorous containing acids (page 7, paragraph 0060, lines 7-10), which meets the claimed limitation of organophosphorous compounds. Liesen further teaches esters of azelaic, sebacic and adipic acids (page 7, paragraph 0058) and esters of neopentyl glycol (page 7, paragraph 0059). Liesen further teaches that the alkyl(meth)acrylate polymers have a molecular weight between 5,000 to 50,000 (page 5, paragraph 0045). Liesen further teaches that the polymers can be prepared by non-aqueous dispersion polymerization techniques (page 2, paragraph 0030). Liesen further teaches that the lubricating oil diluents be used in a quantity of 15 to 400 parts by weight per 100 parts by weight total monomers (page 2, paragraph 0033; page 7, paragraph 0058 and 0059), which meets the claimed limitation of the weight ratio of polymers to oxygen containing compounds of 2:1 to 1:10. Liesen further teaches the use of the current composition as

Art Unit: 1751

a hydraulic fluid (page 7, paragraph 0061). Liesen further teaches polymerizing the polymer in the diluent, in this case the oxygen containing compound (page 2, paragraph 0032; page 7, paragraph 0058).

The prior art is silent about the claimed properties of the oxygen containing component of the functional fluid of a fire point according to ASTM D 92 of at least 250°C as claimed in claim 2 and a kinematic viscosity at 40°C according to ASTM D 445 of 35 mm<sup>2</sup>/s or less as claimed in claim 23. The prior art is further silent about the claimed properties of the functional fluid of a fire point according to ASTM D 92 of at least 300°C as claimed in claim 25, a kinematic viscosity at 40°C according to ASTM D 445 of from 28 to 110 mm<sup>2</sup>/s as claimed in claim 23, a pour point according to ASTM D 97 of -40°C or less as claimed in claim 24, and a Factory Mutual 6390 Group 1 rating as claimed in claim 26. However, it is reasonable to presume that the claimed properties are well within the scope of the teachings of the prior art because the presumption is supported by the use of similar oxygen containing compounds: the esters of dicarboxylic acids- azelaic acid or sebacic acid (page 7, paragraph 0058, lines 2-4); the polyol ether- neopentyl glycol (page 7, paragraph 0059, lines 1-3); and the organophosphorous compound- tricresyl phosphate (page 7, paragraph 0060, lines 7-10) and alkyl(meth)acrylate polymers between the prior art and the instant application. The burden is on the applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. Further, with regard to the limitations of claim 16, the claimed limitations do not need to be met because they are a product by process claim and only the product not the process by which it is produced is given patentable weight.

Accordingly, the broad teachings of Liesen anticipate the material limitations of the instant claims.

Alternatively, even if the broad teachings of Liesen are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art to arrive at a fire point according to ASTM D 92 of at least 250°C and a kinematic viscosity at 40°C according to ASTM D 445 of 35 mm<sup>2</sup>/s since the prior art teaches the equivalent oxygen containing components azelaic acid, sebacic acid (page 7, paragraph 0058, lines 2-4), neopentyl glycol (page 7, paragraph 0059, lines 1-3), and tricresyl phosphate (page 7, paragraph 0060, lines 7-10) which would have the claimed fire points and kinematic viscosities. It also would have been obvious to arrive at a functional fluid with a fire point according to ASTM D 92 of at least 300°C, a kinematic viscosity at 40°C according to ASTM D 445 of from 28 to 110 mm<sup>2</sup>/s, a pour point according to ASTM D 97 of -40°C or less, and a Factory Mutual 6390 Group 1 rating since the prior art teaches the equivalent oxygen containing components and alkyl(meth)acrylate polymers. The burden is on the applicant to prove otherwise.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liesen (US Publication #US 2004/0092409) in view of Pizzini et al. (US Patent 3,243,455).

The primary reference of Liesen is relied upon as set forth above. Liesen does not teach polyalkylene glycols based on butylenes oxide.

The secondary reference of Pizzini teaches polyether compounds which are condensates of alkylene oxides such as butylenes oxide which are useful in functional fluids and hydraulic fluids (column 1, lines 15-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lubricating oils taught by Liesen by incorporating the polyether polyols taught by Pizzini since Pizzini teaches the usefulness of employing butylenes oxide based polyether polyols as surfactants in hydraulic fluids. It is prima facie obvious to combine the two compositions, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423 when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results. A person of ordinary skill in the functional fluid art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liesen (US Publication #US 2004/0092409) in view of Brois (US Patent 5,646,098).

The primary reference of Liesen is relied upon as set forth above. Liesen does not teach diethylene glycol dioleate.

The secondary reference of Brois teaches diethylene glycol dioleate which is useful in functional fluids and hydraulic fluids (column 7, lines 4-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lubricating oils taught by Liesen by incorporating diethylene glycol dioleate taught by Brois since Brois teaches the usefulness of employing diethylene glycol dioleate as an emulsifier for addition to functional fuels and lubes. It is prima facie obvious to combine the two compositions, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423 when ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results. A person of ordinary skill in the functional fluid art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Roos et al. (US Publication US 2003/0060587).

Roos et al. teaches polymer compositions for use in lubricating oils (page 16, claim 21) consisting of 50-100 wt % alkylmethacrylates with 8-40 carbon atoms (page 4, paragraphs 0080-0086), 0-40 wt % methacrylates of formula (IV) (page 4, paragraphs 0092-0093) which includes methyl methacrylate (page 5, paragraph 0098), 0-40 wt % one or more comonomers (page 5, paragraph 0097), and 60-100 wt% fumaric acid (page 3, paragraph 0051) which meets the claimed limitation of an oxygen containing compound consisting of carboxylic acid esters. Components c and d of the prior art are optional (0% by weight) and therefore need not be included (page 4, paragraph 0092; page 5, paragraph 0095).

Accordingly, the teachings of Roos et al. anticipate the material limitations of the instant claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1751

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

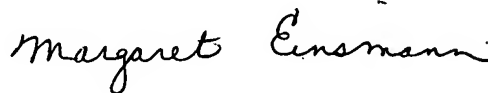
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Amina Khan, PhD  
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December 21, 2005



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